

KERR-McGEE OIL AND GAS ONSHORE LP SOLOMON-BARROW NO. 1

PROPOSED PLAN TO MITIGATE WETLAND LOSSES RESULTING FROM DRILL PAD AND PIPELINE CONSTRUCTION

Kerr-McGee proposes to provide mitigation for wetland losses associated with the development of the Solomon-Barrow No. 1 well through the funding of a wetland restoration project to be implemented by the USFWS on another area within the Anahuac NWR. The project's primary purpose is to restore shallow freshwater wetlands on the upper Texas coast. A recent study of the status and trends of coastal wetlands in Texas determined that palustrine emergent wetlands suffered the greatest losses of any wetland type from the mid-1950s to the mid-1990s, and much of this loss occurred on the upper coast. Initially, this loss was partially offset by thousands of acres of managed rice fields. Rice fields provide valuable freshwater habitats for wintering and resident waterfowl, shorebirds, wading birds, and other wetland-dependent wildlife. Since the mid-1990s, rice acreage in Chambers County has decreased by over 60%. A dramatic decline in rice production has also occurred in Jefferson, Liberty, and Orange counties. These habitats are now being converted to tame pasture or are being taken over by the invasive exotic tree species Chinese tallow.

The proposed wetland restoration project in the Granberry unit of Anahuac National Wildlife Refuge will restore 209 acres of shallow freshwater wetlands. The project area currently consists of permanently fallowed rice fields. Existing rice production infrastructure will be modified and improved and water control structures will be installed to facilitate wetland management. An adjacent reservoir will be rehabilitated to aid in providing a dependable water supply for this project. This project will provide valuable habitat for a suite of wetland-dependent wildlife.

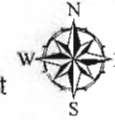
The project area consists of old rice fields, permanently fallowed because they were too low to efficiently farm. Partial levees remain and vegetation consists primarily of Chinese tallow (*Sapium sebiferum*), torpedo grass (*Panicum repens*), longtom (*Paspalum lividum*), and baccharis (*Baccharis halimifolia*). Perimeter levees will be improved (approx. 13,150 ft) and permanent interior levees will be created (approx. 4,460 ft) to better manage hydrology. Interior levees will break the project into three management units. Each unit will have about a 6/10 foot fall from high to low. Levees will have a top at least 10 feet wide and side slopes of 3:1. Levees will be built from on-site material. Eight (8) water control structures will be installed to facilitate water management. Water control structure needs are outlined in the attached project map. In addition, the perimeter levee (7990 ft) of an adjacent reservoir will be rehabilitated to store water for this wetland project. Approximately 15,600 feet of ditches will be cleaned out to facilitate water management and levee rehabilitation. No material will be placed in wetlands during levee rehabilitation and ditch cleaning. The project will result in the establishment of permanent shallow freshwater wetlands dominated by *Ludwigia*, *Sagittaria*, *Eleocharis*, and *Cyperus* with limited amounts of *Alternanthera* and *Typha*.

The restored wetlands will provide important wintering and migrational habitat for waterfowl, shorebirds, wading birds and other waterbirds. The project will provide year-round habitat for the Mottled Duck, an important resident waterfowl species whose numbers in Texas have declined in recent years. It will provide important migrational and wintering habitat for Northern Pintail, a species whose continental population remains well below goals established by the North American Waterfowl Management Plan. The project will also benefit several wetland-dependent avian species listed as “Birds of Conservation Concern” in the Gulf Coast Prairies Bird Conservation Region. These include Yellow Rail, Black Rail, American Bittern, Hudsonian Godwit and Buff-breasted Sandpiper.

Granberry Wetland Restoration Project
Anahuac National Wildlife Refuge
Chambers County, Texas



0 250 500 Feet



Water control structure needs

1	54" x 40' pipe w/ header and dual flaps inside header
2	18" x 20' pipe w/ header, ditch to moist-soil unit
3	54" x 40' pipe w/ header and dual flaps inside header
4	18" x 20' pipe w/ header, ditch to moist-soil unit
5	48" x 40' pipe with header, ditch to reservoir
6	18" x 20' pipe w/ header, connects two cells
7	18" x 20' pipe w/ header, connects two cells
8	36" x 20' pipe w/ screwgate, canal to moist-soil units